

REMARKS

Initially, Applicant notes that the amendments and remarks made in this paper are consistent with those presented to the Examiner by telephone.

By this paper, claims 1, 15-29, and 32 have been amended and no claims have been added or canceled, such that claims 1-33 and 35-37 remain pending, of which claims 1, 15, 29, and 32 are the only independent claims at issue.

The Office Action, mailed July 25, 2008, considered and rejected claims 1-33 and 35-37. The specification was objected to as failing to provide proper antecedent basis for the claimed subject matter. Claims 15-28 were rejected under 35 U.S.C. § 101 because the claimed invention was directed to non-statutory subject matter. Claims 1-8, 10-22, 24-33 and 35-37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lamb (U.S. Patent No. 6,892,264) in view of Iwami (U.S. Publ. No. 2002/0156867). Claims 9 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lamb in view of Iwami, further in view of Kuik (U.S. Patent No. 7,165,258).¹

With regard to the objection of the Specification, Applicant notes that the term "computer program product" has been removed from the claims, thereby rendering the objection to the term moot. Turning to the rejection claims 15-28, it will be noted that the claims have been amended to clarify that all claim embodiments are a computer-readable storage media have stored thereon computer executable instructions that, when executed, cause a computer to implement a method. Applicant respectfully submits that such amendments remove the possibility that the claimed embodiments could encompass subject matter beyond executable instructions stored on a physical storage medium and that the claims therefore are limited to statutory subject matter.

The presently claimed embodiments are directed to providing access to device over a network. Claim 1, for example, recites a method of a method for providing the client system access to one or more of the devices through a network provider. In the method, one or more devices are first identified that can be accessed locally or over a network. A target that identifies a set of the one or more devices is then generated with the target including at least one corresponding device identifier, wherein the set of one or more devices is identified based on each of the devices having at least one common group of clients authorized to access the

¹ Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

devices. Client authorization information identified by the network provider is associated with the target that identifies the set of the one or more devices. The target is then dynamically assigned to a port through a protocol-independent port driver at the network provider such that only clients authorized by the associated client information are allowed to access the assigned port, thereby allowing only the clients access to the set of the one or more device through the target, wherein the assignment of the port is dependent upon load balancing of the network provider.

The independent claims were rejected using the combination of Lamb and Iwami. Lamb is directed to embodiments for an improved Storage Area Network. The improvement is related to plug-n-play storage devices and the generation of a logical identification for the device based on a detected event. The relevant passages describe a host device being assigned a logical unit number by the manager. Iwami is introduced in the Office Action to compensate for Lamb's failure to the set of one or more devices being identified based on each of the devices having at least one common group of client wherein only clients having client authorization information associated with the target can access the devices identified by the target. The cited portion of Iwami generally describes the general topology of a storage area network wherein groups of users are allowed access to specific disk volumes which appear as virtual volumes to each group. The volumes are accessed by means of a virtual address given to the group.

Applicant respectfully submits that the cited art, whether cited individually or in combination, fails to teach or reasonably support all of the elements present in the currently claimed embodiments, and therefore fails to render the pending claims unpatentable. For example, while Lamb discloses assigning logical units to storage devices, such logical units do not properly correspond to a target in the manner claimed. Furthermore, the cited art fails to teach or suggest the elements of dynamically assigning a port, where such dynamically assigned port is chosen based on server load balancing. In view of the failure of Lamb to teach or support such elements, and the failure of Iwami to compensate for such failings, Applicant respectfully submits that the present claims are allowable over the cited art.

The use of a target allows devices and users to easily be added or removed from a system. For example, a new storage device could be added to a target and all users with access to the port associated with the target would immediately be able to access the device. Or, if a new user were associated with the target, they would be able to immediately access the devices

associated with the target. In contrast, with the LUN's of Lamb, the manager must determine a LUN for a new device and then assign the LUN to a client. In situations where a large number of clients must access the device, this can be resource intensive as the manager communicates the new assignments to all of the clients. In Lamb, an actual target relating the devices and clients is never developed, instead the manager is responsible for tracking LUN's and each client that is associated with the device.

The present claims allow a port to be dynamically assigned for a target. By dynamically assigning the port the system can be flexible and allow for load balancing. As an example, if a storage server is overloaded, or even not functioning, the port can be directed to a backup or secondary server. The clients will see no difference, as they are merely following the address assigned at that time to the device and the entire process would be transparent at the client's perspective.

Claim 15 contains elements substantially similar to claim 1, but is directed to a different statutory category, namely computer readable storage media. Claim 29 recites a method similar to claim 1, but uses a functional step in one element of the claim, and further recites files or partitions in place of devices. Claim 32 is also related, but further recites partitions or files representing a storage device and allowing one device type to emulate another device type, a centralized directory maintains authentication and configuration information for the client, and the client is given a Uniform Resource Locator with a dynamically assigned port number to access the file or partition. In view of the previous failings of Lamb and Iwami and the further elements contained within claim 32, Applicant submits that claim 32 is allowable over the cited art.

In view of the foregoing, Applicant respectfully submits that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner

provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at (801) 533-9800.

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Respectfully submitted,

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